

A HORSE WITH WINGS: RED HORSE HISTORY

by

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"O! for a horse with wings!"

William Shakespeare

BACKGROUND

Until the mid-1960s, the Air Force lacked the engineering capability to react quickly in emergency conditions such as: to provide bomb damage repair or other disaster recovery of installations when repairs were beyond base civil engineering's capabilities; to support tactical force deployments when such support may be required without declaration of a national emergency or war; and to provide "expeditionary" airfields and austere facilities in combat areas for tactical air force units. Although Prime BEEF teams, created in 1965, gave the Air Force a mobile capability, they lacked the heavy equipment and skills necessary to augment base engineer forces in the event of heavy bomb damage or disasters, as well as accomplish major repairs where contract capability was not readily available.

A 10 May 1965 Memo from Robert S. McNamara, Secretary of Defense, to Harold Brown, Secretary of the Air Force, asked, "I understand the Marines will move from a Viet Cong-controlled undeveloped land area at Chou Lai to a 4 squadron operational field in 28 days, during which they will construct an 8,000 ft. runway. Does the Air Force have the similar capability? If not, what can be done to develop it?" Major General Robert H. Curtin, USAF Director of Civil Engineering, initiated a study to determine how best to develop this capability. The study recommended that two Prime BEEF

Heavy Repair squadrons be formed immediately from within Air Force resources. Their objective was to provide a mobile civil engineering unit, organic to the Air Force, that is manned, trained, and equipped to perform heavy repairs and upgrade airfields and facilities (constructed by other agencies) and to support weapon systems deployed to a theater of operations.

By September 1965, TAC was tasked to organize, train, equip, and prepare two squadrons for deployment to Southeast Asia. The squadrons were called RED HORSE, an acronym for Rapid Engineer Deployable Heavy Operational Repair Squadron, Engineer. In 1988 they were renamed to simply Civil Engineering RED HORSE squadrons. The first two units, the 555th and 554th, began their training at Cannon AFB, NM, in November 1965. Each squadron was organized as a mobile, self-contained unit of 400 men with a range of skills and construction equipment to provide combat engineering support to Air Force tactical units in a theater of operations. The squadron included medical, food service, vehicle and equipment maintenance, and supply personnel to ensure their self-sufficiency.

ROLE IN VIETNAM WAR

The 554th initially deployed to Phan Rang AB in February 1966 and began work on runway repair. Later that month,

the 555th arrived at Cam Ranh Bay to begin work. Although designed to supplement and not supplant the construction capabilities of the Army and Navy, circumstances in SEA did not permit RED HORSE to remain within its mission limitations. The construction capability of the Navy contractor and the Army Corps of Engineers could not keep pace with the facility requirements created by the rapid buildup. Air Force aircraft were overcrowded on existing airfields and lacked support and maintenance facilities. As of August 1965, less than 4 percent of the projects programmed for the Air Force had been finished. A number of steps were taken to compensate for the limited heavy construction capability available in SEA.

One of these steps was to shift work assignments from contract to troop construction. By early 1966, it had become evident that RED HORSE squadrons would have to be assigned to construction projects originally programmed for contractor forces. The Military Assistance Command, Vietnam, (MACV) limited contractor assignments to airfield pavement construction, roads, utilities, POL facilities, ammunition storage facilities, and control towers. Most other construction projects, particularly cantonments, were transferred to troop or self-help efforts. As a result of this urgent requirement for additional support facilities, above and beyond the existing capability of assigned construction forces, MACV and the Military Assistance Command, Thailand, (MACTHAI) found it appropriate to assign construction projects to the various RED HORSE squadrons. The Theater Commander directed this expedient use of the inherent construction capability of the squadrons. All MCP projects assigned to RED HORSE were selected with the concurrence of the numbered Air Force Civil Engineers to match the manpower and equipment capabilities of the squadron.

By the end of 1966, a total of six RED HORSE units had been organized and

deployed to SEA. The 556th arrived at U Tapao AB, Thailand, at the beginning of July 1966 and engaged primarily in building construction. Members of the squadron also completed work at five other bases in Thailand. The 819th's role in Vietnam was unique among RED HORSE squadrons in that it deployed to an undeveloped area classified as unsecured to establish a base camp without recourse to any base support functions. The mission of the squadron was to accomplish building construction at Phu Cat while the construction combine of RMK-BRJ accomplished airfield construction. Phu Cat became the one base in RVN at which a RED HORSE squadron--the 819th accomplished almost all building construction and the greatest percentage of earthen and paving work. The 820th deployed to Tuy Hoa AB in October 1966. This unit completed nearly 50 percent of all construction completed at Tuy Hoa, including: 170 aircraft protective revetments, 120,000 square feet of wooden buildings, and 175,000 square yards of AM-2 matting. In addition, the 820th operated a rock crusher 9.5 miles from the base and hauled aggregate through enemy-held territory to the base. The 823d reported to Bien Hoa AB in October 1966. Operating out of Bien Hoa, the squadron reorganized into four self-sufficient units. By January 1967, deployed units were in place at Tan Son Nhut, Vung Tau, Da Nang, and Pleiku, while a unit remained at Bien Hoa.

To ensure the efficient utilization of the RED HORSE squadrons in Vietnam, HQ USAF directed the Commander, 2d Air Division to exercise control of the two RED HORSE squadrons (554th and 555th) in Vietnam, in early 1966. This prevented diversion of RED HORSE assets from essential projects. The decision to send three more RED HORSE squadrons to Vietnam in 1966 required a reorganization and expansion of the control element. In May 1967, the 1st Civil Engineering Group was activated. The Commander supervised

and directed all RED HORSE squadrons in Vietnam and reported to the 7th Air Force Civil Engineer. The unit continued to perform this oversight function until inactivated in mid-1970.

The creation of the RED HORSE squadrons presented a problem. In order to maintain high standards, replacement personnel slated for these squadrons had to be sufficiently skilled to prevent a compromise of the original squadron's capability. The withdrawal of 2,400 men, 85 percent of whom were in the civil engineering field, to man the first six RED HORSE squadrons, was a serious drain on Air Force CONUS resources. The effects were evident during the manning of the last two squadrons and again when obtaining replacements for the first two squadrons. An increasing number of individuals were being assigned with skills lower than those authorized, and in some cases, individuals were required to cross train from an allied career field. To remedy the situation, TAC established a replacement training unit, the 560th CES (HR), capable of field training the 2,400 individuals each year required to keep the six RED HORSE squadrons in SEA up to strength. Thus was born the Civil Engineering Field Activities Center in November 1966, located at Eglin Auxiliary Field 2, Florida. Its primary mission was to provide qualified replacement personnel for RED HORSE squadrons. The 560th continued this mission until inactivated in early 1970.

SHOW OF FORCE

While the war was continuing in Vietnam, another contingency situation developed in Korea. In January 1968, the North Koreans captured a US Navy ship, the Pueblo. The US responded with a buildup of forces in South Korea during Operation Combat Fox. Initially, Prime BEEF teams were deployed to various

bases in Korea to build tent cities and repair utility systems in preparation for a Korean buildup. But a more viable in-house construction effort was needed. The 557th CES (HR) was formed and deployed to Korea in April 1968.

The 557th was based at Osan AB, but had active detachments at Kwang-ju, Taegu, Kunsan, Suwon, and Kimpo. During its 18-month stay in Korea, it was involved in constructing aircraft shelters, modular facilities, revetments, and other mission essential facilities to support the additional USAF flying units in the country.

RED HORSE IN PEACETIME

By 1969 the workload for RED HORSE units was decreasing and some of the units were inactivated or redeployed to other locations. By the end of 1971, the 554th was the only squadron remaining in RVN. It moved to Da Nang at the end of 1971 and moved to U Tapao AB in 1972. Two years later, the 554th transferred to Korea where it remained until inactivated in 1995. The 555th was inactivated at Cam Ranh Bay in January 1970 and the 556th was inactivated at U Tapao in late 1969. The 819th returned from Vietnam in 1970 and was stationed at Westover AFB, MA, until 1973 when it moved to McConnell AFB, Kansas. In 1979, it was assigned to RAF Wethersfield, UK, and tasked with RRR responsibilities for United States Air Forces in Europe along with its traditional heavy repair role. The 819th was inactivated in late 1990. The 820th returned from Vietnam in 1970 and located at Nellis AFB, NV, as an ACC asset. The 823d, inactivated in 1971, was reactivated at Eglin the following year. It was also a TAC unit and provided project support for various CONUS bases. Both the 820th and 823d have worked on construction projects in Central America.

As the American involvement in the Vietnam War wound down, the role of RED

HORSE units in peacetime came into question. The requirement for a quick-acting heavy repair force organic to the Air Force, and responsive to Air Force commanders' needs remained. A variety of training programs were necessary to fulfill this requirement. The primary means of providing training was by accomplishment of civil engineering projects that developed skills similar to those that may be required during a contingency. For example, the 819th constructed an aircraft bombing and gunnery range at Blair Lakes, Alaska and the 823d constructed concrete aircraft shelters at Eglin AFB for use in live fire testing of the Maverick Missile.

TOTAL FORCE

As the active duty squadrons decreased in numbers, the capability moved to the Air National Guard (ANG) and Air Force Reserve. The 307th CES (HR) was originally organized on 1 July 1971 as Detachments 307 and 308 located at Ellington AFB, Texas and Barksdale AFB, Louisiana, respectively. In 1976, the Ellington unit relocated to Kelly AFB, Texas and designated the headquarters. The Barksdale unit remained on location, but was redesignated Detachment One, 307th CES. In addition to rehabilitating their own facilities, elements of the unit have been involved in numerous construction activities such as building aircraft shelters at Hahn AB, Germany and a rapid runway repair training site at Sembach AB, Germany.

The ANG established their RED HORSE units at Camp Perry ANG Station, Ohio (200 CES) and at Indiantown Gap ANG Station, Pennsylvania, (201 CEF) in 1971. The mission was to develop the same capabilities as the active duty counterparts, but also to provide the ANG with in-house capability to provide training for Prime BEEF teams. In January 1985, the 202d CES was activated and Federally recognized

at Camp Blanding, Starke, Florida. Three weeks later, the 203d CEF was activated and Federally recognized at Camp Pendleton, Virginia Beach, Virginia (203 CEF).

CIVIC ACTION

RED HORSE units have played an important role in civic action work. During the Vietnam War, nearly every unit assisted the local community in some way. For example, during 1967 the 556th drilled a well for a leper colony, which was struck with an epidemic of typhoid fever from stagnant drinking water, constructed a dining hall for a local grammar school, and built a new floor for a nearby orphanage. In April 1975, members of the 823d constructed a tent city complex at Auxiliary Field 2 at Eglin AFB, FL, for 5,000 Vietnamese refugees. In 1980, members of the 819th removed and re-installed seven bells and a bell cage in an 11th century church in Finchingfield, UK. The goodwill generated in the city, just one mile from RAF Wethersfield, resulted in untold housing and community support for AF personnel. In 1993, members of the 823d deployed to Somalia in support of the UN-sponsored Operation Restore Hope to help alleviate mass starvation among the population and construct revetments to protect AF ground support equipment and Army aviation assets. A RED HORSE team deployed to Jamaica in 2000 to construct two new buildings, including a school for disadvantaged girls, and drill two new water wells. Members of the 307th and the 820th deployed to Belize to purge and repair hand pumps on five water wells and drill four new ones.

NATURAL DISASTER RECOVERY

RED HORSE personnel have always been ready to assist in recovery from

natural disasters. When Hurricane Agnes struck Pennsylvania in 1972, members of the 819th and 820th aided in the clean up. A series of tornadoes devastated Xenia, OH, in 1974. Fortunately, personnel from the 820th had been working on nearby Wright-Patterson AFB and responded within 2 hours with over 50 pieces of heavy equipment and vehicles. HQ TAC deployed members of the 823d with their equipment to Shaw AFB, SC, to help in recovery from the effects of Hurricane Hugo in 1989. The 554th has been active in recovery work in the Pacific region. The Han River flows near Osan AB, ROK, and floods on a regular basis. Using their heavy equipment, RED HORSE has repaired levies and minimized damage to the base and the local community numerous times. They also played an important role in the recovery and repair of Clark AB, PI, following the eruption of Mt. Pinatubo.

OPERATIONS DESERT SHIELD/ DESERT STORM

When Iraq invaded Kuwait in August 1990, RED HORSE was ready to respond. The deployed unit was a composite of the 823d, the 820th, and the 7319th RED HORSE Flight from Aviano AB, Italy. The equipment came primarily from the Aviano prepositioned assets. RED HORSE completed over 25 construction projects at 12 geographically separated sites throughout the Arabian Peninsula. The value of the construction totaled nearly \$15 million.

At Al Kharj, just south of Riyadh, RED HORSE supervised the construction of an air base capable of bedding down five fighter squadrons in a matter of weeks. RED HORSE also constructed a theater munitions storage area at the base. Erecting 17 K-Span facilities and carving out roads, they created a central location for munitions in the theater. At Shaikh Isa AB in Bahrain,

they constructed a taxiway and hard stands to help protect fighter aircraft, which had been parked wingtip-to-wingtip. RED HORSE personnel also supported the sister services by constructing a K-Span facility for the Marines and berming three Patriot missile sites for the Army.

The day following the unilateral ceasefire, Lt Gen Charles A. Horner, USCENTAF Commander, directed RED HORSE to deny air bases in southern Iraq. Within a matter of days, the engineers had successfully denied two bases by cutting runway and taxiway surfaces and destroying hardened aircraft shelters and other facilities.

ORGANIZATIONAL CHANGES

Seven years following its inactivation at SRAAF Wethersfield, the Air Force redesignated and once again activated the 819th RED HORSE Squadron at Malmstrom AFB, Montana. This time it was unique because it was an associate unit comprising active duty and Air National Guard personnel. The newly formed unit deployed to Central America to assist with the recovery from Hurricane Mitch within the first year.

The 554th at Osan AB had downsized in the early 1990s to less than 50 people. The Air Force began restoring the unit in 2000 but only to 139 people. The Air National Guard and Air Force Reserve Command rounded out the unit with the 254th RED HORSE Flight at Camp Murray, Washington, in late 2000 and the 555th RED HORSE Squadron based at Nellis AFB, which was reactivated in 2001. This arrangement created the only Total Force civil engineer squadron in the Air Force. The Guard and Reserve elements not only filled out the 554th but also provided a needed stability and continuity.

THE BUSY NINETIES

In response to the Khobar Towers bombing, American forces in Saudi Arabia moved to Prince Sultan AB near Al Kharj, where they built a tent city for 4,000 deployed airmen.

RED HORSE spent a great deal of time in the Balkans during the 1990s. In late 1994, elements of the 823d deployed to Tuzla AB, Hungary, to provide basing support to Army troops. Eventually, they built four tent cities housing more than 5,000 people. In 1999, RED HORSE returned to the region during Operation ALLIED FORCE. Working with Prime BEEF engineers, members of the 820th and 823d deployed to Albania to support not only the humanitarian mission but also the massive air movement of the Army's Task Force Hawk. Battling the mud at Tirana, RED HORSE engineers replaced a failing C-17 operations ramp by constructing a new 975' x 150' x 18" concrete parking and marshalling area; building a new 987' concrete taxiway to replace the taxiway destroyed by Joint Task Force SHINING HOPE operations; improving 3.5 miles of camp and perimeter supply roads; constructing a medical evacuation helicopter operations pad; completing an upgrade of the power grid for the USAF tent city and installing 100 environmental control units; constructing a German fuel pad and a US Forces fuel pad; and installing 600' of access roads. RED HORSE also deployed to Hungary and Turkey to support beddown operations.

Tragedy struck the 203d RED HORSE Flight on 3 March 2001. Eighteen members of the Flight from Virginia Beach, Va., died near Unadilla, Ga., when the Army C-23 Sherpa aircraft they were flying in crashed. The men were returning from a two-week training mission in Florida.

GLOBAL WAR ON TERRORISM

The events of 11 September 2001 meant nearly nonstop deployments for RED HORSE engineers. Elements from the 823d and 820th deployed to Southwest Asia to support Operation ENDURING FREEDOM, the American effort to eliminate the terrorist breeding ground in Afghanistan. While teams traveled to various sites, one of the major projects was at Al Udeid AB, Qatar. Engineers constructed a \$9.1 million ramp the size of 18 football fields. This was the first time RED HORSE used the slip-form pavement method to do the work. RED HORSE also constructed hundreds of tents and dozens of structures to provide living areas and to support logistical and command and control operations at the base. At Al Dhafra AB, UAE, the 820th undertook one of the largest projects in RED HORSE history, a one million square-foot parking ramp with associated infrastructure. As American forces moved into Afghanistan, RED HORSE repaired the runway at Mazar-e-Sharif airfield. Using the hub-and-spoke method RED HORSE fanned out throughout the region to provide their engineering support to several sites. Because of the magnitude of the work, the Air Force established the 1st Expeditionary RED HORSE Group, to oversee the work of the various RED HORSE units in theater.

As operations wound down, RED HORSE stayed active preparing bases in the CENTCOM AOR for sustained operations in Afghanistan and to set the stage for Operation IRAQI FREEDOM. RED HORSE units were active at nearly every base in the theater. At Thumrait AB, Oman, RED HORSE engineers constructed a 47-acre parking ramp with blast deflectors, asphalt taxiways, hammerhead, and area/edge lighting. The Air Force engineers were able to complete the project in just six months,

one-third the contractor estimate. Members of the 307 RHS also constructed a 200' x 200' concrete munitions holding pad and an 8000' x 24' asphalt road. The 819th/201st constructed buildings at several locations throughout the Arab Gulf region.

A new RED HORSE capability debuted in OIF with the deployment of Airborne RED HORSE teams to Iraq. ARH teams take 21 traditional RED HORSE members and augment them with six firefighters, six explosive ordnance disposal technicians, and two chemical and biological readiness experts. The team members were airborne qualified and used special lightweight equipment. ARH engineers were trained to rapidly deploy into barren locations, assess airfield capabilities, prepare helicopter or aircraft landing areas, clear obstacles, install emergency airfield lighting systems and repair airfield damage. At Tallil, they helped recover the airfield in preparation for use by forward deployed air assets, cleared over 475 acres of airfield surface, swept a 15-acre joint service beddown area, recovered 13,000 small arms rounds, destroyed over 600 Gulf War-era munitions, exploited 30 "first seen" munitions items, and established a 20-acre explosive storage area.

At Baghdad International Airport, they evaluated one million square yards of airfield pavements, conducted EOD sweeps of mission critical areas, prepared four craters for permanent repair, installed and operated an expeditionary airfield lighting system, and battled a large structural fire at the 4th Infantry Division's headquarters.

From the jungles of Southeast Asia to the desert of Iraq, RED HORSE personnel have carried on their proud tradition of service to the Air Force and the United States for nearly four decades. They have shown that their unique capabilities and skills are indispensable in both war and peace.